

学校编码: 10384

分类号\_\_\_\_\_密级 \_\_\_\_\_

学 号: 15220081153737

UDC\_\_\_\_\_

厦 门 大 学

硕 士 学 位 论 文

中国西部大开发的战略分析

An Analysis of China's  
Great Western Development Strategy

David Daniel Vantasil

指导教师姓名: Prof. Lin Xixi

专 业 名 称: 中 国 经 济

论文提交日期: 2010 年 4 月

论文答辩日期: 2010 年 5 月

学位授予日期: 2010 年 月

答辩委员会主席: \_\_\_\_\_

评 阅 人: \_\_\_\_\_

2010 年 4 月

## 厦门大学学位论文原创性声明

本人呈交的学位论文是本人在导师指导下,独立完成的研究成果。本人在论文写作中参考其他个人或集体已经发表的研究成果,均在文中以适当方式明确标明,并符合法律规范和《厦门大学研究生学术活动规范(试行)》。

另外,该学位论文为( )课题(组)的研究成果,获得( )课题(组)经费或实验室的资助,在( )实验室完成。(请在以上括号内填写课题或课题组负责人或实验室名称,未有此项声明内容的,可以不作特别声明。)

声明人(签名):

年 月 日

## 厦门大学学位论文著作权使用声明

本人同意厦门大学根据《中华人民共和国学位条例暂行实施办法》等规定保留和使用此学位论文，并向主管部门或其指定机构送交学位论文（包括纸质版和电子版），允许学位论文进入厦门大学图书馆及其数据库被查阅、借阅。本人同意厦门大学将学位论文加入全国博士、硕士学位论文共建单位数据库进行检索，将学位论文的标题和摘要汇编出版，采用影印、缩印或者其它方式合理复制学位论文。

本学位论文属于：

（        ） 1. 经厦门大学保密委员会审查核定的保密学位论文，  
于        年        月        日解密，解密后适用上述授权。

（        ） 2. 不保密，适用上述授权。

（请在以上相应括号内打“√”或填上相应内容。保密学位论文应是已经厦门大学保密委员会审定过的学位论文，未经厦门大学保密委员会审定的学位论文均为公开学位论文。此声明栏不填写的，默认为公开学位论文，均适用上述授权。）

声明人（签名）：

年        月        日

## 摘 要

关于经济学的研究刚刚开始了两百多年。但自从诞生起，便产生了很多关于解释城市，地区以及国家如何发展与改造的思想和理论。从发展中国家到发达国家的转变一直以来都引人注目并且备受争议，而中国正在经历这一过程。无论任何改变，总会有问题和困难显现出来。就中国目前的飞速发展而言，东部地区与西部地区的收入差距正在逐渐扩大。为了解决这一日益严重的问题，中央政府从2000 年便开始实行一项协调政策——西部大开发策略，致力于提高西部落后省份的经济地位。

本文回顾了中国经济发展的基本历程，基于经济增长的一些相关理论，探讨了中国东西部地区差异的一些现实原因。在此基础上，本文利用 1978-2006 的中国实证数据，检验中国东西部差异的原因所在和西部大开发战略的政策效果。研究发现，西部大开发战略对中国经济的影响从制度上而言，尽管有一定正的影响，但不显著。相比而言，西部地区在制度方面有一定的优势，西部地区的落后主要在于资本的缺乏。最后，本文对中国西部开发提出一些相应的政策建议。

**关键词：**西部大开发；地区差距；资本；劳动

## **Abstract**

The study of Economics only began a little over two centuries ago. Since that time, many theories and ideas have been put forward to explain how cities, regions and nations grow and transform over time. The transformation from what is considered a developing nation into a developed nation has been a fascinating and much debated process. The People's Republic of China is now currently in that process. As with any change, problems can manifest themselves, and with the amazing economic development of China, the increasing income disparity between the eastern region and the western region has developed. To combat this growing problem, the Chinese Central government has begun a coordinated public policy effort in the year 2000 – the Great Western Development Strategy – to address the increasing lagging behind of the remote western provinces of China.

This paper reviews the basic history of China's economic development and growth based on a number of relevant theories of the differences between the eastern and western regions of China. Using empirical data on China from 1978 to 2006, the differences between eastern and western China and the policy results of the Great Western Development Strategy was tested. The policy results found that the Great Western Development Strategy in China in terms of economic impact from the policy, has created a positive impact, but not significant. In contrast, the western region has certain advantages; however it remains behind due to a lack of capital. Finally, some relevant policy recommendations are put forth with regard to the development of western China.

**Keywords:** Xibu Da Kaifa, regional disparities, capital, labor

## Contents

<b>Chapter 1 Introduction.....</b>	<b>1</b>
1.1 Background .....	2
1.2 Reform and the SEZs.....	5
1.3 The Three Regions .....	7
1.4 GDP per Capita.....	9
1.5 Thesis Overview.....	13
<b>Chapter 2 Literature Review .....</b>	<b>14</b>
2.1 Human Capital Development (Education).....	17
2.2 Capital Investments .....	22
2.3 Institutional Reform .....	27
2.4 Criticism of the Policy .....	30
<b>Chapter 3 Theory .....</b>	<b>35</b>
3.1 Accelerator Model .....	35
3.2 Cobb-Douglas Production Function.....	37
<b>Chapter 4 Empirical Evidence.....</b>	<b>43</b>
4.1 The Variables.....	45
4.2 The Panel Regression Analysis.....	50
4.3 Policy Implications.....	53
<b>Chapter 5 Conclusion .....</b>	<b>57</b>
<b>References .....</b>	<b>61</b>
<b>Acknowledgement .....</b>	<b>63</b>

## List of Figures

15-Inch Isohyet and China Population Density .....	4
GDP per Capita .....	10
Primary Schools .....	19
Institutions of Higher Education .....	20
Railway Expansion .....	25
Highway Expansion .....	26
Isoquant maps for Production Functions with Different Elasticities .....	38
Cobb-Douglas Production Function .....	39
Real Fixed Capital.....	48

## **Chapter 1 Introduction**

Over the past 5,000 years of its existence, China has undergone incredible changes. The most radical changes have occurred within the past one hundred years. For example in 1911, just ninety nine years ago, the Qing Dynasty still ruled the nation as a feudal system with much of its national output focused mostly on agriculture.

Following the end of the Qing Dynasty with the abdication of the boy Emperor Puyi, the Republic of China was founded by Dr. Sun Yat-Sen and a modern democracy was created in East Asia. Unfortunately, the Republic of China government quickly fell into disputing factions and the corruption seen under the Qing Dynasty had quickly returned.

After the retreat of the Republic of China government to Taiwan in 1949, the People's Republic of China was established. Under the leadership of Chairman Mao Zedong, China (now ruled under a single political party, the Chinese Communist Party), was supposed to have achieved enormous industrial and agricultural output. The Great Leap Forward was implemented in 1958 which while quite idealistic, became a tremendous disaster of policy for the people of China.

Moreover, after 1949, China had closed itself off to the outside world with only limited trade with other communist nations. The People's Republic of China did not open up again until the Reform Policy of 1978 was established which opened the door to foreign trade and investment.

Under the guidance of Deng Xiaoping, China began its slow movement away from central planning for society and started the long, slow-going road towards a socialist



market society. Enormous progress has been made over the past thirty years since the reform. The lives of literally hundreds of millions of people have greatly benefited from the long-term strategy created by the Chinese Central government which has played a crucial role in economic development.

## 1.1 Background

On January 19, 2000, the Inter-ministerial Committee for Developing the Western Region of the State Council was set up in Beijing, with Premier Zhu Rongji as the Chair. The purpose of this committee was to begin a serious coordinated effort by all Chinese Central government ministries to develop the western region of China. The name of the public policy was the Great Western Development Strategy<sup>1</sup> (*simplified Chinese*: 西部大开发; *pinyin*: Xībù Dàkāifā). The main components of the strategy included the development of infrastructure (ground and air transportation, hydropower plants, energy, and telecommunications), provide incentives for foreign investment (such as tax or loan subsidies), increase environmental awareness such as promoting reforestation and reducing air and water pollution, promotion of education, and provide opportunities in local areas to prevent talent from flowing to richer provinces. As of 2006, "...a total of 1 trillion Yuan (\$125 billion U.S. dollars) has been spent on building the infrastructure in western China in the past six years" (Chinaview).

The motivation for selecting the Great Western Development Strategy for a public policy economic analysis was of a personal interest. As an American who has read much about the development of America's economy in the western territories of the United States in the 1800s, it is coincidental that China is experiencing itself a frontier movement to promote economic advancement in the remote western regions of China.

---

<sup>1</sup> Also known as the *Open Up the West* program.

American history classes often speak of “Manifest Destiny,” which was the belief that America should explore, subdue, and build-up the land from the Atlantic Ocean to the Pacific Ocean. In an editorial printed in July 13, 1865, the famed American newspaper editor Horace Greeley wrote “Go West, young man, go West and grow up with the country.” While the western region of China has been officially part of China going back to ancient times, the spirit of building-up the remote interior region is comparable to America’s frontier spirit.

The most significant difference though between the western frontier of America and the western frontier of China resides in geography. America has access to the ocean on both the eastern and western sides of the nation, while China has access to the ocean along the eastern side. If one considers the transportation geography of America, the shipment of goods and movement of peoples, can arrive on the east coast, and move over land to the west coast, and if necessary, continue on towards Asia or the south pacific (and vice versa towards Europe). This provides a sort of ‘conveyor belt’ in the transportation sector which is a key to economic development.

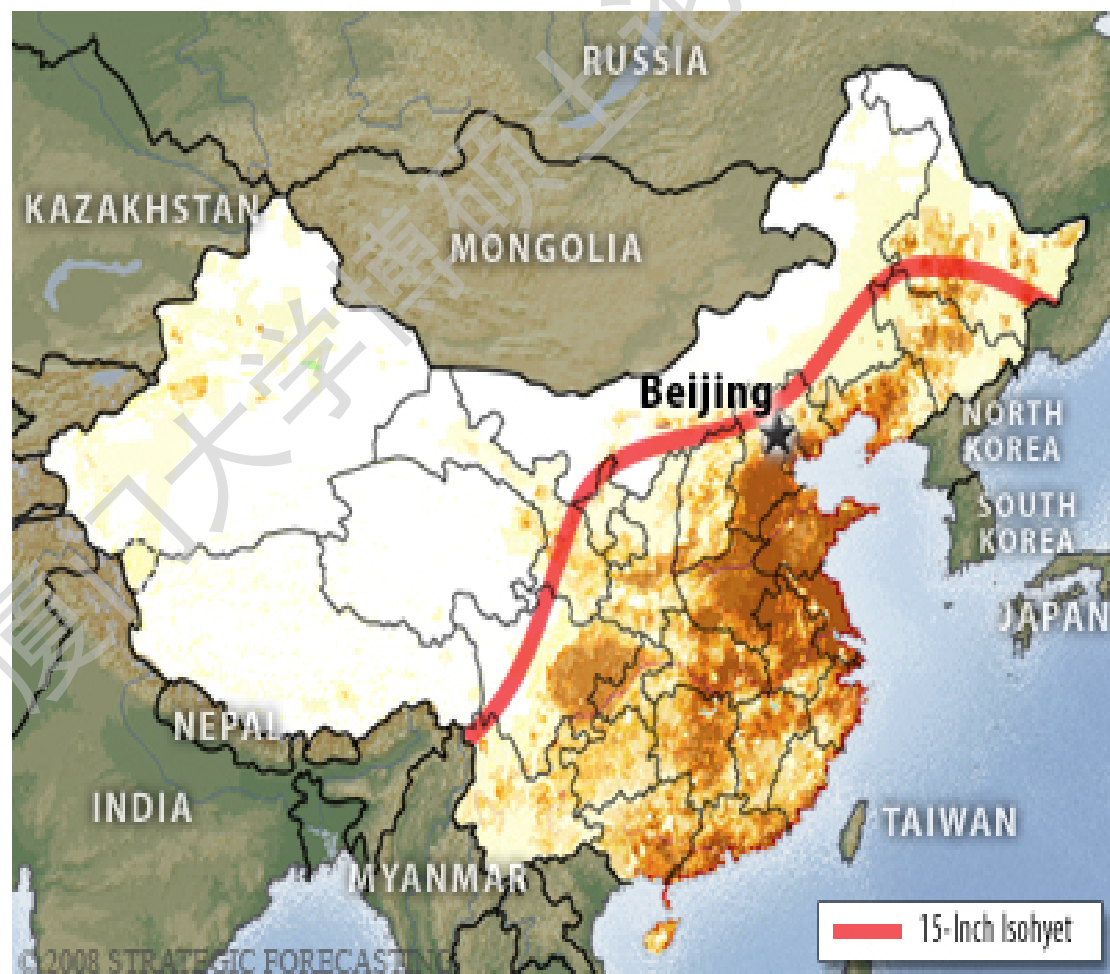
However, China today, though it has had the famed ancient Silk Road from the past which was highly lucrative, now borders areas that have regional or political instability. Pakistan and India, with their heavily disputed Kashmir region, borders China in the west. Moreover, China’s western frontier borders a myriad of former Soviet republics as well as the nearby nation of Afghanistan which has been more or less at war for the past thirty years. A ‘conveyor belt’ of transportation moving across China and into central Asia and on towards Europe, while not impossible, does require major investment as well as political stability in the nations of central Asia.

Historically speaking, western China has always fallen behind that of the eastern

(coastal) region. According to Owen Lattimore, an American author and scholar of Chinese history, he noted an interesting geographical feature of Mainland China - the 15 inch isohyet (or rainfall) line. The land to the south and east of this rainfall line, which receives 15 inches or more of rainfall a year, has an abundance of water resources and arable land. While the area to the north and west of the line, and which receives less than 15 inches of rainfall a year, has scarce water resources and almost no arable land. Refer to Figure 1 below.

*Figure 1*

### 15-INCH ISOHYET AND CHINA POPULATION DENSITY



Source: Stratfor Global Intelligence.

Lattimore emphasized that the human population southeast of the line is much denser and that farming is widespread, resulting in a more sedentary lifestyle. While the population north and west of the line, particularly in earlier times, relied more on pasturing animals for food and with the scarcity of water resources, had to rely on a nomadic lifestyle.

Aside from the 15-inch isohyet line, the other geographical barrier that may slow growth in the western region is the Himalayan mountain range. In terms of ground transportation, such as highways and railways, the extreme ruggedness of mountains raises the cost of building transportation infrastructure. Furthermore, with the movement of both products and people, mountain ranges pose as a natural barrier to hinder or slow down movement, which may also pose as a barrier to economic growth.

## **1.2 Reform and the SEZs**

During the 1980s, within a few years after the Reform Policy of 1978, the most striking economic growth took place within the agricultural sector. Prior, to the 1978 reform policies, China's farmers lived under a commune system where central planners from the Chinese Central government controlled, through regulation, what crops to plant, when to harvest, and the prices they were to be sold for.

Following the reform, farmers were encouraged to abandon the commune system in favor of the responsibility system. This new system allowed farmers to determine for themselves what crops to plant and to decide what price to sell them at. Almost instantly, consumption by farming communities soared as a result that individual farmers were now allowed to 'profit' from their labor. By doing so, this provided the

incentive to take steps to increase their crop yields which benefited the nation as a whole.

Meanwhile, with China's massive human labor resource, the Chinese Central government initiated policies which might encourage foreign companies to relocate manufacturing operations inside China and provide employment for the Chinese people. This began in 1980 with the creation of four Special Economic Zones (SEZ). These new SEZs were located in the cities of Shenzhen, Zhuhai, Shantou, and Xiamen. Later in 1984, due to the success of the initial 4 SEZs, the PRC opened up 14 other coastal cities for international trade and investment. Hainan (an island off the coast of Guangdong) was separated from Guangdong Province in 1988 and created as a new province with SEZ status for the entire province/island. The most obvious factor for all of these SEZs was that they were all located along the coastal areas. Through tax incentives and the availability of low cost labor and inexpensive land leasing, these coastal SEZs were highly favorable to foreign investors. Moreover, being coastal areas kept transportation shipping costs and time from the factory to port to a minimum.

As mentioned previously, the success of these SEZs has been remarkable. The most successful being that of Shenzhen. What was once a small fishing village in the 1970s near Hong Kong has become a major financial center that boasts its own stock exchange. In 1980, Shenzhen had a population of approximately 2,000. As of 2008, the population has reached over 8.7 million<sup>2</sup>! Being a truly migrant city, much of its population has come from not only the rural areas of Guangdong, but also from many poorer provinces, such as those in the central and western regions.

---

<sup>2</sup> *Shenzhen Government Online* <<http://english.sz.gov.cn/>>.

Public policies such as the designation of ‘Special Economic Zone’ status and providing a combination of incentives for investment in a region has proven itself, not only in China, but in many countries and regions around the globe, as being a very strong and efficient method of encouraging economic growth and raising the overall standard of living for the local inhabitants.

The drawback is that while one area may receive an enormous amount of attention and investment, the result may be the cost of lost opportunities in other areas. The eastern (coastal) region of China has become very rich, very quickly. More highways, railroads, and other forms of public infrastructure were focused along the eastern regions to promote further economic growth along this region, leaving the inland areas further behind. Such large tax and/or investment incentives provided through public policy often distort what the free-market would normally do and can increase the divide between rich areas and poor areas.

### **1.3 The Three Regions**

According to the *CIA World Factbook*, the land area of the People’s Republic of China is 9,596,961 sq km, just slightly smaller than the United States. Table 1 gives a breakdown on how China is divided. The three regions are: the eastern (or coastal) region, the central region, and the western region. While the western region only makes up approximately 29% of the entire Chinese population, it does have 56% of the land area. The eastern region does have a majority population at 41%, but if the interior central and western regions are combined, then the eastern region retains a minority status in population. Generally speaking, the further inland one goes, the more towns and villages are scattered and less densely populated the land becomes.

**Table 1: The Three Regions of China**

<i>Region</i>	<i>Provinces</i>	<i>Number of Provinces</i> <i>(1987 – present)</i>	<i>% of China's</i> <i>Population</i> <i>(1995)</i>	<i>% of China's Area</i>
Coastal (Eastern)	Liaoning, Hebei, Beijing, Tianjin, Shandong, Jiangsu, Shanghai, Zhejiang, Fujian, Guangdong, Hainan, Guangxi	12	41	15
Central	Jilin, Heilongjiang, Shanxi, Inner Mongolia, Anhui, Jiangxi, Henan, Hubei, Hunan	9	36	29
Western	Shaanxi, Gansu, Qinghai, Ningxia, Xinjiang, Sichuan, Chongqing, Guizhou, Yunnan, Tibet	15	29	56

Source: Fang Li and Chen Zishun (2000: 196).

Note: The regional division is based on the 1985 Chinese Communist Party Central Committee's Proposal for the Seventh Five-Year Plan for National Economic and Social Development and takes into account that Hainan and Chongqing have become provincial units.

With respect to the Great Western Development Strategy, the focus is primarily on the western region. Moreover, with this particular policy, the provinces of Inner Mongolia and Guangxi, while not directly in the western region, have been included to be part of the Great Western Development Strategy.

## **1.4 GDP per Capita**

Household incomes in the eastern provinces have been increasing very quickly. All of this productivity and growth however was focused on the east and leaving the inland areas of China farther and farther behind. The most obvious difference was the income disparity between the east and west. By the 1990s, incomes in the eastern provinces were almost four times that of the western provinces, and were likely to increase over time.

Using data from the National Bureau of Statistics in China, Figure 2 illustrates the GDP per Capita which has been compared for three different years and can be viewed for 30 provinces, autonomous regions, and municipalities.

As can be viewed from the figure, in 1980, most GDP per capita was not only very low but also fairly equal. However, by the year 2000, GDP per capita in the eastern and central provinces were clearly ahead of the western provinces which are located on the far right, beginning with Inner Mongolia. The success of earlier public policies such as the SEZs of the 1980s has clearly been indicated by the year 2000 via the GDP per capita in the eastern regions. In 2008, the western provinces have shown success in raising their GDP per capita, but still lagging far behind that of their eastern and central counterparts. For example, Shanghai, the wealthiest provincial level city, has more than eight times the GDP per capita as that of Guizhou, the poorest province



Degree papers are in the "[Xiamen University Electronic Theses and Dissertations Database](#)". Full texts are available in the following ways:

1. If your library is a CALIS member libraries, please log on <http://etd.calis.edu.cn/> and submit requests online, or consult the interlibrary loan department in your library.
2. For users of non-CALIS member libraries, please mail to [etd@xmu.edu.cn](mailto:etd@xmu.edu.cn) for delivery details.

厦门大学博硕士论文摘要库